

**REMARKS**

Claims 1-27 are pending in the application. Independent claims 1, 13, 19, and 25 have been amended herein. Favorable reconsideration of the application, as amended, is respectfully requested.

**I. REJECTIONS OF CLAIMS 1-27 UNDER 35 U.S.C. § 103**

Claims 1-27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over "DOCSIS" in view of U.S. Patent No. 5,939,887 ("Schmidt"). Applicants believe that all pending claims are allowable for at least the following reasons. Withdrawal of the rejections is respectfully requested.

One of the features recited in independent claims 1, 12, 13, 19, and 25 is related to testing a cable network using multiple test frequencies. Independent claims 1, 13, 19, and 25 have been amended herein to further clarify one aspect of the invention. Specifically, independent claim 1 requires, *inter alia*, "providing an instruction wherein the instruction instructs a first one of the one or more cable modems to send a first test signal of a first frequency at a first power during a first one of the time increments while the first cable modem is on line and engaged in live data transmission at the original frequency;" and "providing an instruction wherein the instruction instructs the first cable modem to send a second test signal of a second frequency during an available time increment while the first cable modem is on line and engaged in live data transmission at the original frequency."

Other independent claims contain recitations similar to those of claim 1. All of the limitations recited in claims 1, 12, 13, 19, and 25 are described throughout the present specification (some pertinent discussion is found at page 14, line 21-34 and page 2, line 33 to page 3, line 16). Thus, no new matter has been introduced by the claim amendments.

The Examiner asserts in his Response to Arguments that the instructing takes place while the modems are engaged in live traffic at the original frequency. In other words, the Office interprets the "while" clause as modifying the verb "instructing." However, the Office's delimitation of the claim language is not what Applicants intended, nor what should be immediately understood from reading the specification.

In order to explicitly indicate that the "while" clause modifies the verb "send" rather than "instructing," independent claims 1, 13, 19, and 25 have been amended to read "providing an instruction wherein . . ." The adverb "wherein" delimits between "providing an instruction" and the "while" clause. Therefore, the "while" clause now explicitly modifies the verb "send." Accordingly, the Office's response in section 3. a. is now believed to be moot.

Regarding claim 12, the Office Action asserts that cable modems at separate locations are eventually tested according to DOCSIS. Applicants respectfully disagree. Claim 12 requires identifying separate geographic regions for testing, and selecting at least one cable modem at each location *for testing by (a)-(f)* as claimed. In other words, at least two cable modems are selected for performing (a)-(f) *while allowing live data traffic*. It is respectfully submitted that the claimed "wherein ... identifying ... selecting ..." must be considered in the context of the preceding portion of (a)-(f). Applicants respectfully submit that the current rejection of claim 12 is based on an unsupportable piecemeal analysis on the claimed invention.

As discussed in the previous response, in the standard DOCSIS periodic ranging, there is no step for selecting a cable modem in a particular geographic region. As the cited portion describes, the CMTS simply send out a Periodic Ranging message to each cable modem. No selection of a cable modem is performed in the Periodic Ranging. See, DOCSIS, 7.2.4.1 in page 107. Therefore, the cited portion of DOCSIS is not relevant to the claimed invention. Independent claim 12 is believed to be allowable over the cited art in this regard as well.

In summary, Applicants find nothing in the cited art that suggests the claimed modes of testing while live data transmission is on-going. Therefore it is respectfully submitted that the invention defined in independent claims 1, 12, 13, 19, and 25, and their dependent claims, is patentable over the cited art. Withdrawal of the rejections is respectfully requested.

## II. CONCLUSION

Applicants believe that all pending claims are in condition for allowance, and respectfully request a Notice of Allowance at an early date. If the Examiner has any continuing concerns about patentability of the claimed invention, he is encouraged to telephone the undersigned at 510-663-1100, ext 245.

Respectfully submitted,  
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